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4 MPH TECHNOLOGIES OY,
5 Plaintiff,
6 v.
7
8 APPLE, INC.,
9 Defendant.

10 Case No. 18-cv-05935-TLT
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13 **ORDER CONSTRUING CLAIMS**

14 Re: Dkt. Nos. 95, 98, 99
15

16 Pending before the Court is the parties' claim construction dispute. On September 27,
17 2018, Plaintiff MPH Technologies Oy ("MPH") filed its Complaint, ECF No. 1, against Defendant
18 Apple, Inc. ("Apple"), bringing multiple claims for patent infringement. *See generally id.* On
19 April 26, 2019, the case was stayed pending inter partes review. *See Order*, ECF No. 49. In
20 January 2023, the case was reassigned to this Court, and in February, the Court lifted the stay
21 because inter partes review for the claims at issue here had concluded. *See Orders*, ECF Nos. 68,
22 77. On August 28, the parties filed their joint claim construction statement ("Joint Statement"),
23 ECF No. 92; on October 12, MPH filed its claim construction brief ("Opening Br."), ECF No. 95;
24 and on December 11, the Court held a claim construction hearing. Having considered the parties'
25 arguments and the papers submitted, the Court adopts the constructions below.

26 **I. BACKGROUND**

27 The disputed patents fall into three families: First is U.S. Patent No. 8,346,949 ("949
28 patent). The '949 patent is the parent of four disputed patents, U.S. Patent Nos. 9,838,362 ("362
patent"), 9,712,502 ("502 patent"), 9,712,494 ("494 patent"), and 9,762,397 ("397 patent").
Opening Br. 1; Resp., ECF No. 98. The '949 patents share a specification. Opening Br. 1; Resp.
1 n.1. They disclose technology to "secure[ly] forward[] [] a message from a first computer to a

1 second computer via an intermediate computer in a telecommunications network.” Opening Br.
2 Ex. 1 (“‘949 patent”), Abstract, ECF No. 95-2.

3 Second is U.S. Patent No. 7,937,581 (“‘581 patent”). The ‘581 patent claims “[a] method
4 for ensuring secure forwarding of a message in a telecommunication network, having at least one
5 mobile terminal and another terminal and a security gateway there between.” Opening Br. Ex. 6
6 (“‘581 patent”), 10:50–53, ECF No. 95-7. Third is U.S. Patent No. 8,037,302 (“‘302 patent”).
7 Much like the ‘581 patent, the ‘302 patent discloses technology for securely forwarding message
8 from one terminal to another in a telecommunications network. *See* Opening Br. Ex. 7 (“‘302
9 patent”), Abstract, ECF No. 95-8. Even with this secure connection, the first terminal can move
10 from one network address to another. *Id.* at 12:15–34.

11 The parties dispute nine groups of terms related to these patents.

12 II. **LEGAL STANDARD**

13 Claim construction is a question of law. *See Multilayer Stretch Cling Film Holdings, Inc.*
14 v. *Berry Plastics Corp.*, 831 F.3d 1350, 1357 (Fed. Cir. 2016). The process “serves to define the
15 scope of the patented invention and the patentee’s right to exclude.” *HTC Corp. v. Cellular*
16 *Commc’ns Equip., LLC*, 877 F.3d 1361, 1367 (Fed. Cir. 2017); *see also O2 Micro Int’l Ld. v.*
17 *Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (“The purpose of claim
18 construction is ‘to determin[e] the meaning and scope of the patent claims asserted to be
19 infringed’”) (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995)
20 (en banc), *aff’d*, 517 U.S. 370 (1996)).

21 Claim construction follows longstanding principles of interpretation in patent law. First,
22 “the claims of a patent define the invention.” *Innova/Pure Water, Inc. v. Safari Water Filtration*
23 *Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004). The words of a claim are generally given their
24 “ordinary and customary meaning,” which is “the meaning that the term would have to a person of
25 ordinary skill in the art in question at the time of the invention.” *Phillips v. AWH Corp.*, 415 F.3d
26 1303, 1312–13 (Fed. Cir. 2005) (en banc). Such a person “read[s] the claim term not only in the
27 context of the particular claim in which the disputed term appears, but in the context of the entire
28 patent, including the specification.” *Id.* at 1313.

1 When the ordinary meaning of a claim is not readily apparent, courts look to “those
2 sources [of information] available to the public that show what a person of skill in the art would
3 have understood disputed claim language to mean,” such as “the words of the claims themselves,
4 the . . . specification, the prosecution history, and extrinsic evidence concerning relevant scientific
5 principles, the meaning of technical terms, and the state of the art.” *Id.* (quoting *Innova*, 381 F.3d
6 at 1116).

7 Thus, courts first look to intrinsic evidence—that is, the claims, the specification, and the
8 prosecution history. *See id.* The “context in which a term is used in the asserted claim,”
9 “[o]ther claims of the patent in question, both asserted and unasserted,” and “[d]ifferences among
10 claims” are all instructive. *Id.* The claims must also “be read in view of the specification,” which
11 is “the single best guide to the meaning of a disputed term” and often “dispositive.” *Id.* at 1315.

12 “[L]imitations from the specification are not to be read into the claims.” *Comark*
13 *Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998). This is because “the
14 purposes of the specification are to teach and enable those of skill in the art to make and use the
15 invention and to provide a best mode for doing so.” *Phillips*, 415 F.3d at 1323. Further, the effect
16 and force of the specification may vary. “[U]pon reading the specification in . . . context, it will
17 [often] become clear whether the patentee is setting out specific examples of the invention to
18 accomplish [its] goals, or whether the patentee instead intends for the claims and the embodiments
19 in the specifications to be strictly coextensive.” *Id.*

20 In addition to consulting the specification, “the court should also consider the patent’s
21 prosecution history.” *See Markman*, 52 F.3d at 980 (citing *Graham v. John Deere Co.*, 383 U.S.
22 1, 33 (1966)). However, because the “prosecution history represents an ongoing negotiation
23 between the [Patent and Trademark Office] and the applicant,” it “often lacks the clarity of the
24 specification” and is therefore “less useful” for purposes of claim construction. *Phillips*, 415 F.3d
25 at 1317.

26 Though intrinsic evidence—the claims, specification, and prosecution history—has
27 primacy at claim construction, courts may also consider the extrinsic record, including expert and
28 inventor testimony, dictionaries, and learned treatises. *See id.* at 1317–18. Technical dictionaries

in particular “can assist the court in determining the meaning of particular terminology to those of skill in the art,” as they “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Id.* at 1318. And expert testimony can “provide background on the technology at issue,” helping “to explain how an invention works, to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the pertinent field.” *Id.* “[C]onclusory, unsupported assertions,” however, are not helpful, nor should the Court accept expert testimony “that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history.” *Id.* (quoting *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998)).

III. DISCUSSION

A. “Secure” terms

Term	MPH	Apple	Court
“Secure connection”	“Connection protected by [the] one or more security protocols”	“IPSec Connection”	“IPSec Connection”
“Secure forwarding”/“securely forward”	Plain and ordinary meaning	“Forward[ing] using IPSec connection”	“Forward[ing] using IPSec connection”
“Secure message”	Plain and ordinary meaning. Alternatively, “message protected by the one or more security protocols”	“IPSec message”	“IPSec message”

The terms “secure connection,” “secure[ly] forward[ing],” and “secure message” appear throughout MPH’s asserted patents—in the ’949 patent family, as well as in the ’581 and ’302 patents. *See* Joint Statement, Appendix A, at 1–8. Apple contends that every instance of “secure” refers to one type of security protocol, the IPSec protocol. Resp. 6. MPH urges the Court to adopt a broader construction of “secure.” Opening Br. 6.

MPH primarily argues that because a minority of MPH’s asserted claims—just four of

1 thirty-two—expressly refer to IPSec, the Court should not read IPSec into the claims that do not
2 mention it. *Id.* at 7. It is true that under the doctrine of claim differentiation, “different words and
3 phrases used in separate claims are presumed to indicate that the claims have different meanings
4 and scope.” *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1369 (Fed. Cir. 2007)
5 (quoting *Karlin Tech. Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971–72 (Fed. Cir. 1999)).
6 Yet “[c]laim differentiation is ‘not a hard and fast rule.’” *GPNE Corp. v. Apple Inc.*, 830 F.3d
7 1365, 1371 (Fed. Cir. 2016) (quoting *Seachange Int’l, Inc. v. C-COR, Inc.*, 413 F.3d 1361, 1369
8 (Fed. Cir. 2005)). Instead, claim differentiation is “a presumption that will be overcome when the
9 specification or prosecution history dictates a contrary construction.” *Id.* Thus, the Federal
10 Circuit has “recognized that when a patent repeatedly and consistently characterizes a claim term
11 in a particular way, it is proper to construe the claim term in accordance with that
12 characterization,” despite the doctrine of claim differentiation. *Id.* (citation omitted) (collecting
13 cases).

14 For instance, in *GPNE*, the court construed a patent for “devices on [a] network [referred
15 to] as ‘nodes’” that was largely “silent as to the type of a device a ‘node’ must be.” *Id.* at 1368.
16 Because “the words ‘pager’ and ‘pager unit’ appear[ed] in the specification over 200 times,” the
17 Court construed “node” to mean pager. *Id.* at 1371. Similarly, the ’949 patent is silent as to which
18 security protocol must be used, but repeatedly refers to IPSec. *See generally* ’949 patent. As
19 Apple noted in the *Markman* hearing, the term appears nearly 200 times in the ’949 patents.
20 These repeated references to IPSec strongly support Apple’s construction. *See GPNE*, 830 F.3d at
21 1368, 1371.

22 The Summary of the Invention for the ’949 patent also states that “[a]n essential idea of the
23 invention is to use the standard protocol (IPSec).” ’949 patent, 7:29–30. That the Summary refers
24 to IPSec as “essential” strengthens Apple’s reading. On top of that, “[w]hen a patent describes the
25 features of ‘the present invention’ as a whole,” as the Summary of the Invention does here, “this
26 description limits the scope of the invention.” *GPNE*, 830 F.3d at 1371 (cleaned up); *see also*
27 *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 864 (Fed. Cir. 2004) (“Statements that
28 describe the invention as a whole, rather than statements that describe only preferred

1 embodiments, are more likely to support a limiting definition of a claim term.”). To be sure,
 2 elsewhere in the Summary of the Invention, MPH refers to IPsec merely as “[p]referabl[e],” rather
 3 than essential. ’949 patent, 6:64–65. But this isolated statement does not outweigh the
 4 specification’s repeated references to IPsec. *See In re Acacia Media Techs. Corp.*, No. C 05-
 5 01114, 2008 WL 413747, at *4 (N.D. Cal. Feb. 13, 2008) (construing a patent to contain a
 6 limitation that was only “preferabl[e]”).

7 Like the ’949 patent, the ’581 and ’302 patents describe IPsec in their respective
 8 Summaries. The ’581 patent states that “[i]n the invention . . . the secure connection is an IPsec
 9 connection,” and the ’302 patent states that “in the solution of the invention, an IPsec security
 10 association is used.” ’581 patent, 6:59–64; ’302 patent, 8:45–58. As with the ’949 patent, these
 11 references to IPsec in the Summaries of the Invention suggest that Apple’s construction is correct,
 12 even if the patents otherwise disclaim a limitation to any particular security protocol. *See GPNE*,
 13 830 F.3d at 1371.

14 Given the patents’ references to IPsec, the Court construes the “secure” terms as “IPsec
 15 connection,” “forward[ing] using IPSEC connection,” and “IPsec message,” respectively.

16 **B. “Unique identity”**

Term	MPH	Apple	Court
“Unique identity”	Plain and ordinary meaning. Alternatively, “one or more parameters that can be used to find a destination address.”	“One or more SPI values.”	“One or more SPI values.”

21 The term “unique identity” appears in all the asserted claims of the ’949 patent family. *See*
 22 Joint Statement, Appendix A, at 10–11. Apple argues that the Court should adopt a construction
 23 that limits “unique identity” to SPI values, which are specific to the IPsec protocol, among others.
 24 Resp. 9–10. MPH contends that the term can be construed according to its plain and ordinary
 25 meaning; alternatively, it contends that the term refers to “one or more parameters that can be used
 26 to find a destination address.” Opening Br. 11–14.

27 In its claim construction brief and during the *Markman* hearing, MPH seemed to concede
 28

1 that the Court’s construction of “unique identity” hinges on its construction of the “secure” terms
2 above. *See, e.g.*, Opening Br. 12 (“Apple’s construction [of ‘unique identity’] is yet another
3 attempt to improperly limit the inventions to IPSec.”). So, the Court’s construing “secure” to refer
4 to IPSec supports Apple’s construction of “unique identity.”

5 The specification and prosecution history both support this construction as well. The
6 specification details how “[i]n the invention, an IPSec connection is shared by the first computer
7 and the second computer, while the intermediate computer holds information required to perform
8 address and IPSec SPI translations.” ’949 patent, 10:11–14. As with the “secure” terms, the
9 patent’s description of “the invention” supports a construction that involves SPI values. *See*
10 *GPNE*, 830 F.3d at 1371. Similarly, during prosecution, the applicants described “the present
11 invention” and its use of SPI values. Resp. Ex. C, at 9–10, ECF No. 98-4. This too supports
12 Apple’s construction. *See GPNE*, 830 F.3d at 1371.

13 Construing “unique identity” to mean SPI values also avoids indefiniteness. A claim term
14 is indefinite “if its claims, read in light of the patent’s specification and prosecution history, fail to
15 inform, with reasonable certainty, those skilled in the art about the scope of the invention.”
16 *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 898–99, 908 (2014). If a term lacks an
17 antecedent, it may be indefinite. *See, e.g.*, *Bushnell Hawthorne, LLC v. Cisco Sys., Inc.*, 813 F.
18 App’x 522, 526–27 (Fed. Cir. 2020). And, here, claim 10 of the ’949 patent recites “[t]he method
19 of claim 1 wherein the method further comprises changing . . . the SPI-value.” ’949 patent, 23:8–
20 9. If “unique identity” is not limited to SPI values, then it appears that “the SPI-value” in claim 10
21 lacks an antecedent. *See id.*

22 MPH points out that during inter partes review Apple argued for a different construction
23 and contends that Apple should be estopped from presenting its current construction to this Court.
24 Opening Br. 12–13. MPH is correct that during inter partes review, Apple argued that “unique
25 identity” “encompasses a combination of multiple parameters,” not just SPI values. *See, e.g.*,
26 Opening Br. Ex. 20, at 18. And it is true that when “a party assumes a certain position in a legal
27 proceeding, and succeeds in maintaining that position, he may not thereafter, simply because his
28 interests have changed, assume a contrary position, especially if it be to the prejudice of the party

1 who has acquiesced in the position formerly taken by him.” *Trustees in Bankr. of N. Am. Rubber*
 2 *Thread Co. v. United States*, 593 F.3d 1346, 1353 (Fed. Cir. 2010) (cleaned up). However, a party
 3 is estopped from presenting a new position when they have “succeeded in persuading a court to
 4 accept [their] earlier position.” *Id.* (citations omitted). And during inter partes review, the Patent
 5 Trial and Appeal Board (“PTAB”) did not adopt Apple’s construction of “unique identity”; in fact,
 6 it did not construe the term at all. Opening Br. Ex. 36, at 9, ECF No. 95-37. Thus, Apple is not
 7 estopped from arguing for its construction here. *See N. Am. Rubber Thread Co.*, 593 F.3d at 1353.

8 In view of the specification and prosecution history, as well as the Court’s construction of
 9 the “secure” terms, the Court construes “unique identity” to mean “one or more SPI values.”

10 **C. “Exchange” terms**

Term	MPH	Apple	Court
“Key exchange protocol”	“Protocol for establishing cryptographic keys”	“Protocol for one computer to send a key to another computer in response to receiving a key from that computer”	“Protocol for establishing cryptographic keys”
“Exchanging keys with one another”	“Establishing cryptographic keys not revealed to the intermediate computer”	“A computer sending a key to another computer in response to receiving a key from that computer”	“Establishing cryptographic keys not revealed to the intermediate computer”

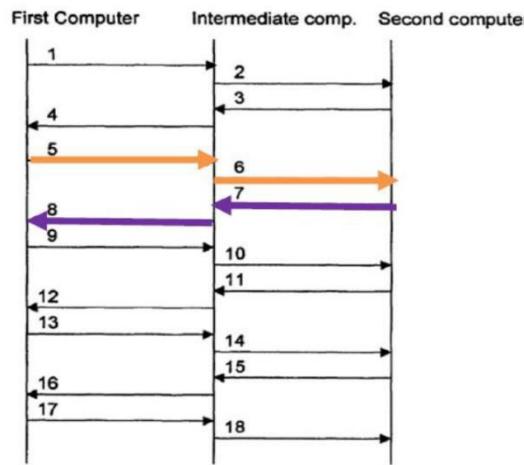
11 The “exchange” terms appear throughout the ’949 family of patents. *See* Joint Statement,
 12 Appendix A, at 23–28. At root, the parties disagree over whether the “exchange” terms refer to
 13 *exchanging* keys—as Apple contends—or whether it just involves *establishing* keys—as MPH
 14 contends. Opening Br. 14–18; Resp. 11–14. MPH also argues that “exchanging keys with on
 15 another” means the keys are not revealed to the intermediate computer. *See* Opening Br. 17.

16 The Court begins with the claim, read in light of the specification. *See Innova/Pure Water,*
 17 *Inc.*, 381 F.3d at 1115; *Phillips*, 415 F.3d at 1312–13. The ’949 patent recites “[a] method for
 18 secure forwarding of a message . . . comprising the first computer and the second computer
 19 negotiating and exchanging keys with one another . . . according to a key exchange protocol to
 20 establish the secure connection” ’949 patent, 22:6–13. The description of the ’949 patent
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1 explains that the goal of this key exchange protocol is to “establish . . . cryptographic keys.” *Id.* at
 2 14:19–24 (emphasis added). Indeed, an example describes “negotiat[ing] and establish[ing],” not
 3 exchanging, “keys.” *Id.* at 14:42–46. The specification’s repeated references to establishing
 4 support MPH’s proposed construction that the “exchange” terms refer to establishing keys.

5 The specification and prosecution history also support MPH’s proposed construction that
 6 the keys are not revealed to the intermediate computer. The specification makes clear that “[t]he
 7 overall key exchange protocol should not reveal the [] cryptographic keys to the intermediate
 8 computer to avoid even the potential for security problems.” *Id.* 14:24–27. Likewise, during the
 9 prosecution history, the applicant distinguished the prior art by noting that “[i]n the current
 10 invention, the intermediate computer does not need to know the cryptographic keys.” Opening Br.
 11 Ex. 25, at 10, ECF No. 95-26.

12 Apple points to a portion of the specification that appears to support its proposed
 13 construction. *See Resp.* 11–12.



22 **FIG. 4**

23 *See id.* at 12 (citing ’949 patent, Figure 4). According to Apple, this figure shows two computers
 24 exchanging keys. *Id.* (quoting ’949 patent, 18:38–39, 48–51). However, as MPH points out, this
 25 figure depicts two computers exchanging key *data* in order to *establish keys*. Reply 7 (quoting
 26 ’949 patent, 18:38–51).

27 Apple further notes that MPH’s proposed construction requires the Court to read
 28 “exchange” to mean “establish,” against the word’s plain meaning. In support, it cites various

1 general purpose and technical dictionaries. *See* Resp. 12–13. However, technical dictionaries also
 2 support MPH’s proposed construction, detailing how “[t]he goal of key exchange processing is the
 3 secure establishment of common keying information.” Opening Br. Ex. 27, at 47, ECF No. 95-28.
 4 In any case, extrinsic evidence like Apple’s does not outweigh the specification and prosecution
 5 history that MPH brings to bear. *See Phillips*, 415 F.3d at 1317–18.

6 In sum, the Court construes “key exchange protocol” to be a “protocol for establishing
 7 cryptographic keys” and “exchanging keys with one another” to mean “establishing cryptographic
 8 keys not revealed to the intermediate computer.”

9 **D. “Negotiating”**

Term	MPH	Apple	Court
“Negotiating”	“Agreeing on cryptographic keys”	“Conferring to reach agreement on the parameters for a secure connection”	“Agreeing on cryptographic keys”

10 “Negotiating” appears in the ’949 patent as well. *See* Joint Statement, Appendix A, at 20–
 11 21. MPH argues that the term just means “agreeing on cryptographic keys.” *See* Opening Br. 14.
 12 Apple argues it means something broader: “conferring” (rather than just “agreeing”) “on the
 13 parameters for a secure exchange” (rather than on just “cryptographic keys”). Resp. 14.
 14 to reach agreement on the parameters for a secure exchange,” *see* Resp. 14.

15 The claim language supports MPH’s proposed construction that “negotiating” means
 16 “agreeing,” not “conferring.” The claim recites “negotiating and exchanging keys with one
 17 another.” ’949 patent, 22:10–11. And the Court has already construed “exchanging” to mean
 18 “establishing,” not “sending a key to another computer in response to receiving a key from that
 19 computer.” As a general rule, “[t]he context of the surrounding words in a claim [] must be
 20 considered in determining the ordinary and customary meaning of a disputed claim limitation.”
 21 *Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 345 F.3d 1318, 1325 (Fed. Cir. 2003) (citing
 22 *Brookhill-Wilk I, LLC, v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1300 (Fed. Cir. 2003)). Thus,
 23 because the Court has construed “exchanging” to mean “establishing,” not “exchanging,” it finds
 24 that “negotiating” should be construed to mean “agreeing,” not “conferring.” *See id.*

25 Extrinsic evidence supports this construction as well. Technical dictionaries have defined

1 “negotiating” to refer to “agreeing.” *See* Opening Br., Ex. 26, at 1, ECF No. 95-27 (“[T]who
 2 authenticated parties can agree on secure and secret keying material.”); Opening Br., Ex. 27, at 48
 3 (“Alice and Bob use public-key cryptography to agree on a session key and use that session key to
 4 encrypt data.”).

5 The claim language and specification also support MPH’s reading that “negotiating” refers
 6 to negotiating only keys, not all the parameters of a secure connection. Indeed, the claim recites
 7 “negotiating . . . keys,” not conferring on parameters. ’949 patent, 22:10–11. Mirroring the claim,
 8 the specification provides an example of “negotiat[ing] and establish[ing] cryptographic keys”—
 9 again, not negotiating all other parameters. *Id.* at 14:42–43.

10 The Court thus construes “negotiating” as “agreeing on cryptographic keys.”

11 **E. “Via the intermediate computer”**

Term	MPH	Apple	Court
“Exchanging keys with one another . . . via the intermediate computer”	“Via the intermediate computer” modifies “the secure connection between the first computer and the second computer”	“Exchanging keys with one another via the intermediate computer” (i.e., the phrase “via the intermediate computer” modifies “exchanging keys with one another”)	“Via the intermediate computer” modifies “the secure connection between the first computer and the second computer”

12 Claim 1 of the ’949 patent and all the dependent claims recite “[n]egotiating and
 13 exchanging keys with one another, by the first and second computer, according to a key exchange
 14 protocol to establish the secure connection between the first computer and the second computer
 15 *via the intermediate computer.*” ’949 patent 22:6–9 (emphasis added). The parties dispute
 16 whether “via the intermediate computer” modifies the phrase immediately preceding it (“secure
 17 connection between the first computer and the second computer”) or whether it modifies a phrase
 18 at the beginning of the sentence (“exchanging keys with one another”). Opening Br. 14; Resp. 16.
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20 Again, the Court starts with the claim’s language. *See Interactive Gift Exp., Inc. v.*
 21 *Compuserve Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001). And according to the claim’s language,
 22 “via the intermediate computer” would modify the phrase immediately preceding it, as MPH
 23 argues. *See Kruse Tech. P’ship v. Volkswagen AG*, 544 F. App’x 943, 949 (Fed. Cir. 2013) (“A
 24

1 claim must be read in accordance with the precepts of English grammar.” (quoting *In re Hyatt*,
2 708 F.2d 712, 714 (Fed. Cir. 1983)); *cf. Energy E. Corp. v. United States*, 645 F.3d 1358, 1361
3 (Fed. Cir. 2011) (“Under the last antecedent rule, a limiting clause or phrase ‘should ordinarily be
4 read as modifying only the noun or phrase that it immediately follows.’” (quoting *Barnhart v.*
5 *Thomas*, 540 U.S. 20, 26 (2003) (applying the last antecedent rule to a statute))).

6 Indeed, the claim describes the secure connection happening via the intermediate
7 computer. It details how the intermediate computer “receiv[es]” the secure message “using the
8 secure connection” and then how it “forward[s]” the secure message “in the secure connection.”
9 ’949 patent, 22:24–39. Likewise, the object of the invention “is to develop a method for
10 forwarding secure messages between two computers, especially, via an intermediate computer.”
11 *Id.* at 6:17–20; *see Pacing Techs., LLC v. Garmin Int’l, Inc.*, 778 F.3d 1021 (Fed. Cir. 2015)
12 (limiting a claim based on the object of the invention). The prosecution history also supports
13 MPH’s proposed construction. For instance, at one point the applicant clarified that claim 1 of the
14 ’949 patent had “been amended to specify that there is a secure connection between the first
15 computer and second computer via the intermediate computer.” *See* Resp. Ex. D, at 12, ECF No.
16 98-5.

17 In light of the claim language, the specification, and the prosecution history, the Court
18 construes “via the intermediate computer” to modify “the secure connection.”

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1 **F. “Intermediate computer” and “computer”**

Term	MPH	Apple	Court
“Intermediate computer”	Plain and ordinary meaning, no construction required. Alternatively, “an intermediate networking device (such as a server) comprising a stand-alone unit or interconnected units functioning together to facilitate secure communication between computers”	“At least one intermediate computer [device] that individually satisfies each recited requirement on the intermediate computer”	“At least one intermediate computer that individually satisfies each recited requirement on the intermediate computer, wherein a computer can be comprised of multiple devices”
“Computer”	Plain and ordinary meaning, no construction required.	“At least one computer [device] that individually satisfies each recited requirement on the computer”	“At least one computer that individually satisfies each recited requirement on the computer, wherein a computer can be comprised of multiple devices”

16 The terms “computer” and “intermediate computer” appear throughout the ’949 patent.

17 See Joint Statement, Appendix A, 12–20. The parties dispute whether one computer must meet all
 18 the requirements the patent sets out for computers. Opening Br. 18–23; Resp. 18–20. At the
 19 *Markman* hearing, Apple clarified that its proposed construction would require one individual
 20 device—not just one individual computer—to satisfy all the patent’s requirements. See also Resp.
 21 18–19.

22 In *Finjan*, the Federal Circuit recently reiterated what it has held multiple times in the
 23 past—that “as a matter of plain language, reciting ‘a computer’ (or a ‘first computer’) that
 24 performs a function, and then further reciting that ‘the computer’ (or ‘said first computer’) that
 25 performs multiple additional functions, suggests that such ‘computer’ must be tied to all those
 26 functions.” *Finjan LLC v. SonicWall, Inc.*, 84 F.4th 963, 974 (Fed. Cir. 2023) (quoting *Traxcell*
 27 *Techs., LLC v. Nokia Sols. & Networks Oy*, 15 F.4th 1136, 1143–44 (Fed. Cir. 2021)).

1 However, *Finjan* also acknowledged the Federal Circuit's earlier holding that "the terms
2 ‘computer’ and ‘computer system’ are ‘not limited to a single, stand-alone computer or
3 workstation.’” *Id.* at 975 (quoting *Symantec v. Comp. Assocs. Int'l*, 522 F.3d 1279, 1291 (Fed.
4 Cir. 2008)). And it embraced the defendant's argument that “even if the [patent's] reference to ‘a
5 computer’ may mean ‘one or more computers,’”—that is, one or more devices—“the subsequent
6 references to ‘the computer’ can only be satisfied by the same ‘one or more computers’ [i.e.,
7 devices] that satisfied the first limitation.” *Id.* at 974. In short, *Finjan* makes clear that when a
8 patent recites “a computer” with a function, and then recites “the computer” with another function,
9 the same computer must perform both functions; but that computer can be comprised of multiple
10 devices. *See id.* at 974–75.

11 Here, the claim recites “an intermediate computer” and later “the intermediate computer,”
12 each with separate functions. *See, e.g.*, '949 patent, 22:10–39. Yet this simply means that one
13 intermediate computer fulfills each of those functions, even if it is comprised of multiple devices.
14 *See Finjan*, 84 F.4th at 974–75.

15 Apple argues that the patent uses the word “network” to refer to multiple devices, so its
16 references to one “computer” must be references to one device. *See* Resp. Br. 19. As an example,
17 it points to the phrase “an intermediate computer in a telecommunication network,” which implies
18 that the intermediate computer “is one component in the broader network of computers.” Resp.
19 Br. 19 (quoting '949 patent, 22:8). Similarly, the specification describes a “network” made up
20 partly by “personal computers.” '949 patent, 1:19–21. Even if the patent draws this distinction
21 between networks and computers, networks could still be comprised of multiple computers, each
22 of which could be comprised by multiple devices. *See Finjan*, 84 F.4th at 974–75. Thus, Apple's
23 reliance on the word “network” is unavailing.

24 Given *Finjan*, the Court finds that a computer or intermediate computer can be made up of
25 multiple devices, but that each computer or intermediate computer must fulfill all the requirements
26 of the patent.

1 **G. “The intermediate computer configured to receive from a [mobile / second]**
 2 **computer a secure message sent to the first network address”**

Term	MPH	Apple	Court
“The intermediate computer configured to receive from a [mobile / second] computer a secure message sent to the first network address”	“The intermediate computer configured to receive a secure message sent from a mobile computer to the first network address”	“The intermediate computer configured to receive a secure message that a mobile computer sent to the first network address”	“The intermediate computer configured to receive a secure message that a mobile computer sent to the first network address”

9 This term appears in claim 1 of the ’494 and ’362 patents, which the claims at issue depend
 10 on. *See* Opening Br. Ex. 3, 22:47–49 (“’494 patent), ECF No. 95-4; Opening Br. Ex. 5, 22:49–51
 11 ECF No. 95-6. The parties dispute whether the mobile or second computer must send a secure
 12 message directly to the intermediate computer or whether the secure message merely starts at the
 13 mobile or second computer and is eventually sent to the intermediate computer. *See* Resp. 20–21;
 14 Reply 13.

15 During inter partes review, the Federal Circuit provided an answer:

16 The plain meaning of “intermediate computer configured to receive from a mobile
 17 computer a secure message sent to the first network address” requires the mobile
 18 computer to send the message to the first network address. The phrase identifies
 19 the sender (i.e., the mobile computer) and the destination (i.e., the first network
 20 address). The proximity of the concepts links them together, such that a natural
 21 reading of the phrase conveys the mobile computer sends the secure message to
 22 the first network address. *Apple Inc. v. MPH Techs. Oy*, 28 F.4th 254, 261 (Fed.
 23 Cir. 2022).

24 And the Federal Circuit’s construction binds this Court. *See Ottah v. Fiat Chrysler*, 884
 25 F.3d 1135, 1140 (Fed. Cir. 2018); *Rambus Inc. v. Hynix Semiconductor Inc.*, 569 F. Supp. 2d 946,
 26 963–64 (N.D. Cal. 2008).

27 MPH attempts to argue that the Federal Circuit was discussing another matter—whether a
 28 message is sent directly to the first network address, rather than the intermediate computer. Reply
 13. However, it appears that the first network address is part of the intermediate computer.
 Immediately before reciting the term here, the claim recites “the intermediate computer configured

1 to be assigned with a first network address.” ’494 patent, 22:44–49.

2 The Court thus construes the term in line with the Federal Circuit’s construction.

3 **H. “Establishing a secure connection . . .”**

Term	MPH	Apple	Court
“Establishing a secure connection having a first address of the mobile terminal as a first endpoint and a gateway address of the security gateway as a second endpoint . . . the mobile terminal sending a secure message in the secure connection from the second address of the mobile terminal to the other terminal via the security gateway”	“Establishing a secure connection having a first address of the mobile terminal as a first end-point and a gateway address of the security gateway as a second end-point / the mobile terminal sending a secure message in the secure connection from the second address of the mobile terminal to the other terminal via the security gateway [wherein the secure connection is between the mobile terminal and the security gateway protecting the other terminal].”	Indefinite	Indefinite

18 This term appears in the ’581 patent. ’581 patent, 10:54–11:3. Apple argues that this term
 19 is indefinite, largely because “secure connection” lacks a proper antecedent basis. Resp. 22. MPH
 20 argues that the term is not indefinite because “a secure connection” in the first half is the
 21 antecedent for “the secure connection” in the second half. Reply 14.

22 Again, a term is indefinite if it “fail[s] to inform . . . those skilled in the art about the scope
 23 of the invention.” *Nautilus*, 572 U.S. at 898–99, 908. And without an antecedent, a term risks
 24 indefiniteness. *See Bushnell Hawthorne*, 813 F. App’x at 526–27. Here, “the secure connection”
 25 lacks an antecedent. The first “secure connection” is between “a first address of the mobile
 26 terminal” and “a gateway address.” ’581 patent, 10:54–56. But the second “secure connection” is
 27 between “the second address of the mobile terminal” and “the other terminal.” *Id.* at 11:1–3. By
 28

1 the claim's plain language, the secure connections are different, and the second secure connection
 2 thus lacks an antecedent. Underlining that conclusion is the claim's description of the secure
 3 connection "chang[ing]" during this process. *Id.* at 10:64–67.

4 In short, the Court finds the language indefinite.

5 **I. "Where in the first computer is a mobile computer in that the address of the
 6 mobile computer changes"**

Term	MPH	Apple	Court
"Wherein the computer is a mobile computer in that the address of the mobile computer changes"	"Wherein the computer is a computer capable of moving between networks in that the address of the computer can change"	Indefinite	"Wherein the computer is a computer capable of moving between networks in that the address of the computer can change"

12 This term appears in the '502 patent. Join Statement, Appendix A, 32. Apple argues it is
 13 indefinite because it combines an apparatus and a method for using it. Resp. 24. MPH proposes a
 14 construction that describes the computer's capabilities. Opening Br. 24.

15 "[A] single claim covering both an apparatus and a method of use of that apparatus is
 16 indefinite." *MasterMine Software, Inc. v. Microsoft Corp.*, 874 F.3d 1307, 1313 (Fed. Cir. 2017)
 17 (citation omitted). That is because "claiming both an apparatus and method of using the apparatus
 18 within a single claim can make it unclear whether infringement . . . occurs when one creates an
 19 infringing system, or whether infringement occurs when the user actually uses the system in an
 20 infringing manner." *Id.* (cleaned up). But "apparatus claims are not necessarily indefinite for
 21 using functional language." *Id.* (citation omitted). When a claim "claim[s] an apparatus with
 22 particular capabilities," it may not be indefinite. *Id.* (citation omitted).

23 For instance, in *Rembrandt Data Techs., LP v. AOL, LLC*, 641 F.3d 1331, 1339 (Fed. Cir.
 24 2011), a claim was indefinite. It recited "[a] data transmitting device . . . comprising," among
 25 other things, a "first buffer means," and it recited "transmitting" certain types of frames. *Id.* The
 26 buffer means was an apparatus element, but transmitting was a method—therefore, the claim was
 27 indefinite. *See id.* By contrast, in *MasterMine Software*, the claim recited a "reporting module
 28 installed" with certain software. 874 F.3d at 1315. "Though [the] claim [] include[d] active

1 verbs—presents, receives, and generates—these verbs represent[ed] permissible functional
2 language used to describe capabilities of the ‘reporting module.’” *Id.* So, the claim did not
3 combine an apparatus and a method and was therefore not indefinite. *See id.* at 1315–16.

4 Here, Apple argues that the first half of the term (“the computer is a mobile computer”)
5 describes a capability, that the computer can move between mobile networks. *See Resp.* 25.
6 Thus, according to Apple, the second half of the term (“in that the address of the mobile computer
7 changes”) describes more than just a capability, but what the computer actually does. *See id.*

8 But the PTAB construed the first half of the term to describe a capability *because of* the
9 language in the second half:

10 Claim 1 does not recite that the mobile computer moves between networks. To
11 the contrary, claim 1 recites that “the computer is a mobile computer in that the
12 address of the mobile computer changes.” In other words, claim 1 describes what
13 a mobile computer is (i.e., it can change addresses, or put differently, is capable of
14 moving between networks), not that it must move between networks.

15 Opening Br. Ex. 36, ECF No. 95-37 (cleaned up).

16 Unlike in *Rembrant*, then, the claim recites what a mobile computer is capable of, rather
17 than a separate method for what the mobile computer does. The term thus echoes the language in
18 *MasterMine Software*, where “verbs represent[ed] permissible functional language used to
19 describe capabilities.” 874 F.3d at 1315–16.

20 The Court therefore finds that the term is not indefinite and adopts MPH’s construction.

21 **IV. CONCLUSION**

22 Based on the filings and the *Markman* hearing, the Court adopts the nine constructions
23 above.

24 **IT IS SO ORDERED.**

25 Dated: January 2, 2024

26 
27 TRINA L. THOMPSON
28 United States District Judge